

**OPPOSITION Testimony of  
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Senate Bill 745

March 15, 2022

**Before the  
Judicial Proceedings Committee  
William C. Smith, Jr., Chair**

Chair Smith and Respected Senators:

My name is Gary Schwartzbauer and I am a neurosurgeon and Medical Director of Neurotrauma Critical Care and Intermediate Care at the R Adams Cowley Shock Trauma Center and I am opposed to the passage of Senate Bill 745.

Patients arrive at Shock Trauma in a large busy area called the Trauma Resuscitation Unit. There the trauma attending on call carries a 2-way radio where you can hear the incoming calls for help from all around the state. It gives me a great sense of pride to hear the attending say "Shock Trauma online," because I know those three words are a lifeline to the patient, and I also know that when I hear the three words "motor cycle crash," that lifeline is even more critical.

As a neurosurgeon I am sometimes called upon to take the skull off a swollen brain of an injured motorcycle rider. This surgery, called a decompressive craniectomy can be life-saving but creates a large defect on the entire side of the head that is disfiguring and leaves the soft brain under the skin unprotected. If they survive, patients need to wear a protective helmet until the bone is put back months later, if ever. So you can wear a helmet now or helmet later. As a critical care intensivist I care for these same patients in the Neurotrauma ICU, deciding on ways to treat their pain, making them comfortable on a ventilator, finding the best way to

feed them and to keep their bodies from wasting away and succumbing to overwhelming infections as they often can't care for themselves. Among many such patients, I am haunted by a 10 year old son brought to a dying patient's bedside asking innocently and repeatedly for his father to wake up, not knowing that moments before, our care team had discussed with the family that the patient would die despite all we could do. He was an illegally unhelmeted motorcycle rider that lost control of his bike.

Senate Bill 745 seeks to reverse mandatory helmet use for riders over the age of 21 who have been licensed for over two years and who have completed a motorcycle rider safety course. The provisions in the bill as proposed suggest that:

1. Riders over the age of 21 who have been licensed more than two years are less likely to incur a motorcycle crash, brain or other bodily injury, and that
2. Riders who have taken a motorcycle rider safety course are less likely to crash or to sustain injuries.

*The problem with the premise of this bill is that these specifications are not supported by the national nor by the State of Maryland data AND that these assumptions are clearly false.*

## **THE FACTS ARE:**

**Assumption: Older, more experienced riders are less likely to crash and die. FALSE. The average age of motorcycle fatalities is increasing. In 1975 those 29 or younger composed 80% of motorcycle fatalities and in 2017 only 28%. Forty-three was the average age of a motorcyclist killed in a collision in 2016<sup>1</sup>**

**Assumption: Riders who have taken a safety course are less likely to crash. FALSE. A Cochrane Review in 2010 of 23 research studies including 3 randomized trials could not conclude that motorcycle rider training prevents crashes.<sup>2</sup>**

**Assumption: Deaths and costs to the State and Society increase when helmet laws are repealed. TRUE.**

- **Motorcycle fatalities *increase* by 30% when universal helmet laws are repealed**
- **When a state repeals its helmet law or opts for less restrictive requirements, helmet use decreases and *motorcycle-related deaths, injuries, and costs increase***
- **Motorcyclists in states without universal helmet laws are more likely to**
  - die during hospitalization
  - sustain severe traumatic brain injury, and
  - be discharged to long-term care facilities
  - have twice as many cervical SPINE injuries as helmeted riders<sup>10</sup>
- **Non-helmeted drivers are more likely to be admitted to the hospital and to incur *twice the medical costs* compared to helmeted riders.**
  - *Costs saved* in states with a universal helmet law are, on average, nearly *four times greater* per registered motorcycle than in states without such a law

- Unhelmeted motorcyclists account for 36% of the total motorcyclists involved in crashes, but account for *70% of the costs*
- Unhelmeted motorcyclists are twice as likely to suffer cervical spine injuries as helmeted riders<sup>10</sup>
- **Therefore there is an *increased burden* of hospitalization and long-term care, adding to overall *health care costs*.**

A study of 105 motorcyclists hospitalized at a major trauma center determined that 63% of their care was paid for by public funds, with Medicaid accounting for over half of all charges.<sup>3</sup>

**Most importantly, the death rate in Maryland dropped by 56% (per 10,000 registered motorcycles) over a 5-year period after enactment of the all-rider law in 1992 (Autopsy Study of Motorcyclist Fatalities, 2002).**

- Unhelmeted motorcycle riders are *twice* as likely to suffer traumatic brain injuries from crashes.<sup>4,5,6,7</sup>
- The median hospital charges for motorcycle riders hospitalized with severe traumatic brain injuries were 13 times higher than the charges for those who did not have a traumatic brain injury.<sup>5</sup>
- Unhelmeted motorcycle riders are less likely to have health insurance and are therefore more likely to have their medical expenses paid by government-funded healthcare.<sup>8</sup>

**The *only safety measure* that costs little to initiate and reaches all riders is a *state universal motorcycle helmet law*. It is also the *only measure proven to improve motorcycle safety*.<sup>5</sup>**

#### **TRAUMATIC BRAIN INJURY**

*Traumatic brain injury is a leading cause of motorcycle crash death.*<sup>9</sup>

- Riders who do not wear helmets are more likely to suffer traumatic brain injuries, and median hospital charges for those with traumatic brain injuries are 13 times higher than for those without such injuries. (Cook 2009)

Even when not fatal, these debilitating head injuries can mean a lifetime of costly rehabilitation and severe emotional trauma for family and friends.

The effectiveness of appropriately designed motorcycle helmets in preventing and mitigating head injury is unequivocal:

- A 1991 report reviewing published studies concluded that motorcycle helmet use has lowered fatality rates, prevented serious head injuries, and reduced the need for ambulance service, hospitalization, neuro-surgical intervention, intensive care, rehabilitation, and long-term care in motorcyclist accidents.
- The 2003 independent Cochrane Review of published studies found that helmets substantially reduced the risk of head injury and fatality in motorcycle crashes, and found *no evidence* of an increased risk of any other types of injury (Liu, 2003).

- A 1996 Department of Transportation (DOT) report noted that riders not wearing helmets are three times more likely to suffer brain injury than those riders wearing helmets.
- The Crash Outcome Data Evaluation System (CODES) study found that un-helmeted motorcyclists are three times more likely to suffer brain injuries than those wearing helmets and that motorcycle helmets are 67% effective in preventing brain injuries (NHTSA, 2005).

***The passage of helmet use laws governing all motorcycle riders is the most effective method of increasing helmet use.***

**SB745** proposes to exempt riders over the age of 21 with two years' riding and having taken a motorcycle safety course from wearing helmets. *Why should we conduct this experiment on the citizens of the State of Maryland, when it has already been done?* In other states that have enacted repeals of their motorcycle helmet laws or exceptions for certain motorcyclists, there has been an overall increase in fatalities. Texas and Arkansas repealed all rider motorcycle helmet law and observed utilization went from 97% in each state to 66% and 52% respectively. Texas motorcycle operator fatalities rose by 31% and Arkansas motorcycle operator fatality rose by 21% (Preusser, 2000).

Louisiana's all-rider helmet repeal in 1999 caused motorcycle deaths to increase by 100 percent (NHTSA, 2003). Louisiana subsequently **re-enacted** their motorcycle helmet law and found a significant reduction in the incidence and severity of injuries to the head and a 48% decrease in the average cost per accident and the **death rate decreased by 24%**. As in Louisiana, in 24 out of 26 states there was an overall increase in fatalities after repeal of helmeted laws with the conclusion that repealed mandatory helmet laws were followed by a substantial increase in motorcycle operator fatalities. This does not even bring into account the devastating effect of these legislative actions on the increased incidence of traumatic brain injuries and the associated pure medical and societal costs due to inability to work and socialize secondary to traumatic brain injuries (Evans, 1988; Cooper, 1987; Bledsoe, 2005). A recent study commissioned by the Florida Department of Transportation shows that since Florida's repeal in 2000, motorcycle deaths have risen almost 42%.

### **Freedom of Choice**

The opposition will bring up the issue of freedom of choice. We must consider their main arguments. Is the motorcyclist only hurting him/herself when s/he does not wear a helmet and is this a violation of personal choice/human rights... or of the constitution? The answer to these questions were handed down by The Supreme Court of the United States of America in *Simon vs. Sargent* 396 F. Supp. 277.279 409 US 1020 (1972) stating that *the individual was hurting citizens around him* and *that the helmet legislation was not a violation of the motorcyclists' constitutional rights*. The mandatory motorcycle helmet law is not a freedom of choice, it is a matter of sound public policy and all rider motorcycle helmet laws should remain intact. The Maryland Court of Appeals also upheld Maryland's All Rider Helmet Law.

Thank you.

*Respectfully* Submitted,  
Gary T Schwartzbauer, MD PhD  
With significant input from  
Maureen McCunn, MD MIPP, FCCM

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